

B¹⁰ 14. (Amended) The floor covering as claimed in Claim 13, wherein the filler is a mixture of platelet-shaped and crystalline mineral intergrowths.

B¹¹ 15. (Twice Amended) The floor covering as claimed in Claim 1, having a variable color pattern and a homogeneous design.

REMARKS

Claim Rejections Under 35 U.S.C. § 112

Claims 11, 13 and 14-15 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the term “essentially” in claim 14 has been objected to as rendering the claim indefinite. Applicants have deleted the term “essentially” from claim 14 to alleviate this objection. Additionally, in claim 11 the phrase “possibly one or more crosslinking agents” has been objected to as being unclear. Applicants have amended claim 11 to replace the term “possibly” with the term “optionally” as suggested by the Examiner to alleviate this objection. Additionally, “possibly” was deleted in claim 13.

In claim 15, the term “homogeneous design” was objected to as a relative term which renders the claim indefinite. The PTO states that “homogeneous” is not defined by the claim, and the specification does not provide a standard for asserting the requisite degree. Thus, the PTO has held that one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. In response, Applicants are submitting a copy of known glossary terms enclosed in document EN 12466 for floor covering terms. This document shows that the term

“homogeneous floor covering” is known to mean “a floor covering with one or more layers of the same composition, color, and pattern throughout its thickness.” Applicants submit that this definition applies equally to the term “homogeneous design.” Applicants contend that the term is not indefinite and has a meaning commonly known to one of ordinary skill in the art.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-13 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,362,278 to *Pfaendner et al.* in view of U.S. Patent No. 6,224,804 to *Schwonke et al.* The PTO alleges that *Pfaendner et al.* shows a carpet flooring comprising at least one grafted copolymer and polyolefins comprising ULDPE. However, the PTO states that *Pfaendner et al.* does not specifically show that the ULDPE has a density of less than 0.910 g/cm³ as claimed in the present application. The PTO then has cited *Schwonke et al.* which allegedly discloses an elastomer floor covering having a density of at least one elastomer based on a polyolefin of less than 0.918 g/cm³. Thus, the PTO states that it would have been obvious to one of ordinary skill in the art at the time the invention was made to make an elastomer covering of *Pfaendner et al.* with an ULDPE with the densities as in the instant application since it is known that such an elastomer provides a floor covering with low emissions.

The determination of obviousness under 35 U.S.C. § 103 is a legal conclusion based on factual evidence. *Burlington Indus., Inc. v. Quigg*, 822 F.2d 1581, 1584, 3 U.S.P.Q.2d 1436, 1439 (Fed. Cir. 1987). Initially, the PTO bears the burden of establishing the *prima facie* case of obviousness. *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed Cir. 1984). To establish a *prima facie* case, the PTO must satisfy three requirements. First, the prior art relied upon, coupled with the knowledge generally available in the art at the time of the invention, must

contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or to combine references. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Second, the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *Amgem, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1209, 18 U.S.P.Q.2d 1016, 1023 (Fed. Cir. 1991). Lastly, the prior art reference or combination of references must teach or suggest all the limitations of the claims. See *In re Wilson*, 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970).

To support a conclusion of obviousness, "either the references must expressly or impliedly suggest the claimed combination or the [PTO] must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 U.S.P.Q. 972, 973 (Bd. Pat. App. & Int. 1985). In evaluating obviousness, the Federal Circuit made it very clear that one must look to see if "the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have had a reasonable likelihood of success viewed in light of the prior art." *In re Dow Chemical Co. v. American Cyanamid Co.*, 837 F.2d 469, 473, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988). Both the suggestion and the expectation of success must be found in the prior art, not in the applicant's disclosure." *Id.*

Applicants respectfully traverse the PTO's rejections under 35 U.S.C. § 103(a) because the combined art fails to teach or suggest a floor covering comprising a polymer binding having at least one elastomer based on a polyolefin having a density of less than 0.910 g/cm³ and at least one grafted copolymer. As previously stated by the PTO, the primary reference, *Pfaendner et al.* does not teach or suggest that the claimed polyolefin has a density of less than that claimed in the


present application. The PTO asserts that one of ordinary skill in the art would have been motivated to change the disclosed polyolefin in *Pfaendner et al.* with that disclosed in *Schwonke et al.* Applicants contend that the PTO has failed to show any motivation outside that which is disclosed in Applicants' own disclosure which would have motivated one of ordinary skill in the art to combine that which is taught in the two cited references. As noted previously, both the suggestion and the expectation of success must be found in the prior art, not in the Applicants' disclosure.

The PTO further asserts that it would have been obvious to one of ordinary skill in the art to make the elastomer floor covering comprising copolymers of ethylene and octane of *Pfaendner et al.* with the densities as in the instant application, since it is known that such an elastomer helps to provide a flooring with low emission, no discoloration, and prevention of unpleasant odors. Applicants contend that the PTO has not cited any art outside of that disclosed in Applicants' disclosure suggesting that it is known that such an elastomer helps to provide a flooring with low emission, no discoloration, and prevention of unpleasant odors. The cited art fails to teach or suggest a low emission floor covering. Thus, there is no motivation for modifying cited art to produce such a low emission floor covering. The suggestion and the expectation of success must be found in the prior art and not from the Applicants' disclosure. *Pfaendner et al.* does not teach or suggest a low emission floor covering as claimed in the present application, one would not have been motivated to substitute the claimed densities as stated in the present application. Thus, Applicants contend that the combined art does not teach or suggest that which is claimed in the present application.

Thus, Applicants respectfully submit that claims 1-15 of the application are believed to be in condition for allowance and an early notice to such effect is earnestly solicited.

4/4/03
Date

Respectfully submitted,


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April 4, 2003
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APPENDIX

1. (Amended) [Floor] The floor covering comprising as polymer binder at least one elastomer based on at least one polyolefin with a density $< 0.910 \text{ g/cm}^3$, and at least one grafted copolymer.
2. (Amended) [Floor] The floor covering as claimed in Claim 1, wherein the polyolefin has a density of $0.85 - 0.892 \text{ g/cm}^3$.
3. (Twice Amended) [Floor] The floor covering as claimed in Claim 1, wherein the polyolefin is selected from among the class of VLD PE polymers.
4. (Twice Amended) [Floor] The floor covering as claimed in Claim 1, wherein the polyolefin is a mixture of at least two ethylene copolymers, wherein the ethylene copolymer mixture comprises a copolymer (a) as the main polymer with a density of $0.89 - 0.91 \text{ g/cm}^3$ and a copolymer (b) to control rheology and elasticity with a density of $0.86 - 0.88 \text{ g/cm}^3$ and an MFI > 3 .
5. (Amended) [Floor] The floor covering as claimed in Claim 4, wherein the copolymers (a) and (b) are present at a weight ratio of 4:1 to 3:2.
6. (Twice Amended) [Floor] The floor covering as claimed in Claim 4, wherein the copolymers (a) and (b) are copolymers of ethylene and octene.

7. (Twice Amended) [Floor] The floor covering as claimed in Claim 1, wherein the grafted copolymer is a grafted copolymer based on a HD polyethylene.

8. (Amended) [Floor] The floor covering as claimed in Claim 7, wherein the grafted copolymer is a maleic acid anhydride grafted HD polyethylene.

9. (Amended) [Floor] The floor covering as claimed in Claim 8, wherein the grafting degree is 1% to 5%.

10. (Twice Amended) [Floor] The floor covering as claimed in Claim 1, wherein the proportion of grafted copolymer in relation to the total weight of the polymeric binder is 5% to 25% by weight.

11. (Twice Amended) [Floor] The floor covering as claimed in Claim 1, wherein the elastomer is cross-linked with at least one cross-linking agent based on an organic peroxide[s] and [possibly] optionally [one or more] a co-cross-linking agent[s].

12. (Amended) [Floor] The floor covering as claimed in Claim 11, wherein the co-cross-linking agent is an isocyanuric acid derivative[s and/] or an acrylate or a methacrylate derivative[s] derived from a polyol[s] [are used as co-cross-linking agents].

13. (Twice Amended) [Floor] The floor covering as claimed in Claim 1, which further [contains] comprises a filler[s], [and/or] a pigment[s as well as possibly], a processing aid[s], an antioxidant[s], a static eliminator[s], a UV stabilizer[s and] or a slip agent[s].

14. (Amended) [Floor] The floor covering as claimed in Claim 13, wherein the filler is [essentially] a mixture of platelet-shaped and crystalline mineral intergrowths [is used as filler].

15. (Twice Amended) [Floor] The floor covering as claimed in Claim 1, having a variable color pattern and a homogeneous design.

Floor Coverings

Terms

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EN 12466: 1997

Englischer Begriff	Définition	Französischer Begriff	Deutscher Begriff	Definition
2.1.10 wear layer	binder, above a support material or backing. Uppermost layer of a floor covering directly exposed to wear, including factory finish, if applied.	couche d'usage, d'usure	Nutzschicht	schem Blindermittel auf einem Trägermaterial oder Rücken. Oberste Schicht eines Bodenbelags, die die direkte Verschleißausgesetzt ist, gegebenenfalls einschließliche Oberflächenfinish.
2.1.11 factory finish	Transparent coating applied during manufacture, usually not thicker than 0,05 mm.	application de finition	Oberflächenfinish	Bei der Herstellung aufgetragene durchsichtige Schicht, die normalerweise nicht dicker als 0,05 mm ist.
2.1.12 in-situ finish	Thin transparent coating applied after installation.	finition in situ	Versiegelung	Dünne durchsichtige Schicht, die nach dem Verlegen aufgebracht wird.
2.1.13 backing	Integral layer of a floor covering installed directly in contact with the substrate	sous couche	Rücken	Integrale Schicht eines Bodenbelags, der direkt auf den Untergrund gelegt wird.
2.1.14 glass fibre felt	Non-woven fibrous cloth made from glass-fibres	voile de verre	Gläsvlies	Faservlies, hergestellt aus Glasfasern.
2.1.15 homogeneous floor covering	floor covering with one or more layers of the same composition and colour, patterned throughout its thickness.	revêtement de sol homogène	homogener Bodenbelag	Bodenbelag, bestehend aus einer oder mehreren Schichten mit der gleichen Zusammensetzung und Farbe, durchgehend durch die gesamte Dicke gemustert.
2.1.16 heterogeneous floor covering	floor covering consisting of a wear layer and other compact layers which differ in composition and/or design and can contain a reinforcement.	revêtement de sol hétérogène	heterogener Bodenbelag	Bodenbelag, bestehend aus einer Nutzschicht und weiteren kompakten Schichten, die sich in der Zusammensetzung und/oder Musterung unterscheiden und eine Stabilisierungseigenschaft enthalten können.
2.1.17 polyvinyl chloride	Floor covering with a surface layer which is produced using	revêtement de sol à base	Polyvinylchlorid-Bodenbelag	Bodenbelag mit einer Oberschicht aus Polyvinylchlorid (und Modifizierungen)